

IN THE CLAIMS:

For the convenience of the Examiner, all pending claims of the present Application are shown below whether or not an amendment has been made.

1. **(Currently amended)** An apparatus for communicating packets in a network environment, comprising:

a network element operable to receive a packet and to identify a sequence number included in the packet, wherein the sequence number is associated with a state of one or more adjacent network elements, ~~wherein the network element is operable to update a table included therein in order to account for the state associated with the sequence number, and~~ wherein the network element is operable to ~~ignore the packet~~exchange incremental state information with the one or more adjacent network elements if the sequence number included in the packet has not already been received.

2. **(Original)** The apparatus of Claim 1, wherein the network element includes a transmitter state operable to build and to communicate the packet to a selected one or more of the adjacent network elements.

3. **(Canceled)**

4. **(Original)** The apparatus of Claim 1, wherein the packet is a Hello packet that includes the sequence number in its corresponding header.

5. **(Original)** The apparatus of Claim 1, wherein the packet includes a fragment value operable to indicate whether the packet is a fragment to be included with other fragments in order to comprise an entire packet that includes awareness information.

6. **(Original)** The apparatus of Claim 1, wherein the network element includes a fragment timer operable to provide a time interval in which fragments are to be received at a selected location in a network.

7. **(Original)** The apparatus of Claim 1, wherein the network element is operable to query a selected one of the adjacent network elements in order to receive missing awareness information, and wherein an absence of the missing awareness information is reflected by the sequence number.

8. **(Original)** The apparatus of Claim 1, wherein the packet includes a checksum operable to provide an error detection function for the packet at receiving and transmission locations associated with a selected one or more of the network elements.

9. **(Currently amended)** A method for communicating packets in a network environment, comprising:

receiving a packet at a network element;

identifying a sequence number included in the packet, wherein the sequence number is associated with a state of one or more adjacent network elements; and

~~updating a table included in the network element in order to account for the state associated with the sequence number; and~~

~~ignoring the packet~~exchanging incremental state information with the one or more adjacent network elements if the sequence number included in the packet has not already been received.

10. **(Original)** The method of Claim 9, further comprising:

building and communicating the packet to a selected one or more of the adjacent network elements.

11. **(Original)** The method of Claim 9, wherein the packet is a Hello packet that includes the sequence number in its corresponding header.

12. **(Original)** The method of Claim 9, wherein the packet includes a fragment value operable to indicate whether the packet is a fragment to be included with other fragments in order to comprise an entire packet that includes awareness information.

13. **(Original)** The method of Claim 9, further comprising:
providing a time interval in which fragments are to be received at a selected location in a network, wherein the fragments comprise a Hello packet that includes the awareness information.

14. **(Original)** The method of Claim 9, further comprising:
querying a selected one of the adjacent network elements in order to receive missing awareness information, wherein an absence of the missing awareness information is reflected by the sequence number.

15. **(Original)** The method of Claim 9, further comprising:
providing an error detection function for the packet at receiving and transmission locations associated with a selected one or more of the network elements.

16. **(Currently amended)** A system for communicating packets in a network environment, comprising:

means for receiving a packet at a network element;

means for identifying a sequence number included in the packet, wherein the sequence number is associated with a state of one or more adjacent network elements; and

~~means for updating a table included in the network element in order to account for the state associated with the sequence number; and~~

means for ~~ignoring the packet~~exchanging incremental state information with the one or more adjacent network elements if the sequence number included in the packet has not already been received.

17. **(Original)** The system of Claim 16, further comprising:

means for building and communicating the packet to a selected one or more of the adjacent network elements.

18. **(Original)** The system of Claim 16, wherein the packet is a Hello packet that includes the sequence number in its corresponding header.

19. **(Original)** The system of Claim 16, wherein the packet includes a fragment value operable to indicate whether the packet is a fragment to be included with other fragments in order to comprise an entire packet that includes awareness information.

20. **(Original)** The system of Claim 16, further comprising:
means for providing a time interval in which fragments are to be received at a selected location in a network, wherein the fragments comprise a Hello packet that includes the awareness information.

21. **(Original)** The system of Claim 16, further comprising:
means for querying a selected one of the adjacent network elements in order to receive missing awareness information, wherein an absence of the missing awareness information is reflected by the sequence number.

22. **(Original)** The system of Claim 16, further comprising:
means for providing an error detection function for the packet at receiving and transmission locations associated with a selected one or more of the network elements.

23. **(Currently amended)** Software for communicating packets in a network environment, the software being embodied in a computer readable medium and comprising code such that when executed is operable to:

receive a packet at a network element;

identify a sequence number included in the packet, wherein the sequence number is associated with a state of one or more adjacent network elements; and

~~update a table included in the network element in order to account for the state associated with the sequence number; and~~

~~ignore the packet~~exchange incremental state information with the one or more adjacent network elements if the sequence number included in the packet has not already been received.

24. **(Original)** The computer readable medium of Claim 23, wherein the code is further operable to:

build and communicate the packet to a selected one or more of the adjacent network elements.

25. **(Original)** The computer readable medium of Claim 23, wherein the packet is a Hello packet that includes the sequence number in its corresponding header.

26. **(Original)** The computer readable medium of Claim 23, wherein the code is further operable to:

provide a time interval in which fragments are to be received at a selected location in a network, wherein the fragments comprise a Hello packet that includes the awareness information.

27. **(Original)** The computer readable medium of Claim 23, wherein the code is further operable to:

query a selected one of the adjacent network elements in order to receive missing awareness information, wherein an absence of the missing awareness information is reflected by the sequence number.

28. **(Original)** The computer readable medium of Claim 23, wherein the code is further operable to:

provide an error detection function for the packet at receiving and transmission locations associated with a selected one or more of the network elements.

29. **(Previously presented)** The apparatus of Claim 1, wherein the network element is a router and the sequence number is selected from a circular number space.